SPECIFICATION

Please amend the specification as follows:

Please amend the paragraph beginning at page 1, line 5 as follows:

This application claims priority from Provisional Application No. ~~XX/XXX,XXX [Attorney Docket No. 010450P1]~~ 60/340,232, filed December 14, 2001, entitled "Acquisition of a Gated Pilot Signal" and currently assigned to the assignee of the present invention.

Please amend the paragraph beginning at page 1, line 14 as follows:

In wireless communications system, a user may access a network, or communicate with other users, through one or more base stations. Typically, each base station is configured to serve all users in a specific geographic region generally referred to as a cell. In some high traffic applications, the cell may be divided into sectors with a base station serving each sector. Each base station transmits a pilot signal which allows a user to synchronize with [[a]] the base station and coherently demodulate the transmitted signal once the user is synchronized to the base station. The user generally establishes a communications channel with the base station having the strongest pilot signal.

Please amend the paragraph beginning at page 2, line 9 as follows:

The ability of the subscriber station to acquire the pilot signal can be ~~effected~~ affected by numerous sources. By way of example, pilot signal acquisition can be severely hampered in the presence of residual frequency offsets in the baseband pilot signal due to local oscillator (LO) drift at the subscriber station or due to Doppler shift introduced by the relative motion between the subscriber station and base station. The difficulty in acquiring the pilot signal due to frequency offsets is a problem that is not unique to CDMA, but one that may be encountered in all communications systems.

Please amend the paragraph beginning at page 6, line 13 as follows:

FIG. 1 is a system diagram of an exemplary communications ~~systems~~ system 100. The communications system provides a mechanism for a subscriber station 102 to access a network, or communicate with other subscriber stations, through one or more base stations. For ease of explanation, only three base stations 104, 106 and 108 are shown, however, as a matter of practice, numerous base stations will be operating with at least one base station located in every cell. Should the cells be divided into sectors, a base station could be located in each sector. Each base station 104, 106 and 108 transmits a pilot signal 110, 112 and 114, respectively, over a forward link. The forward link refers to transmissions from a base station to a subscriber station. The subscriber station 102 attempts to synchronize to the CDMA communications system using one or more of the pilot signals during initial acquisition.

Please amend the paragraph beginning at page 7 line 3 as follows:

The PN code used to spread the pilot signals may take on various forms depending on the system application, the operating environment, and the overall design constraints. For purposes of illustration, a periodic PN code which is 32,768 chips long with 512 phase offsets spaced apart by 64 chips will be used to ~~described~~ describe the inventive pilot acquisition techniques. An exemplary CDMA communications ~~systems~~ system employing this methodology is a High Data Rate (HDR) communications system. The HDR communications system is typically designed to conform to one or more standards such as the cdma2000 High Rate Packet Data Air Interface Specification," 3GPP2 C.S0024, Version 2, October 27, 2000, promulgated by a consortium called "3rd Generation Partnership Project." The contents of the aforementioned standard is incorporated by reference herein. In communications systems other than HDR, the length of the PN code for spreading the pilot signal, the number of phase offsets, and the spacings between the phase offsets can be varied to optimize system parameters without departing from the inventive concepts described throughout.

Please amend the paragraph beginning at page 8, line 9 as follows:

FIG. 3 is a functional block diagram of an exemplary receiver in a subscriber station operating in the exemplary HDR communications system. In the described exemplary

embodiment, the receiver is based on a heterodyne complex (I-Q) architecture. For ease of explanation, the described exemplary receiver is depicted functionally without reference to separate I (in-phase) and Q (quadrature) channels. Referring to FIG. 3, the transmitted signals from all the base stations are received through one or more antennas 302. The resulting superimposed signal received by the antenna 302 is provided to an RF section 304. The RF section [[302]] 304 can be implemented in any manner known in the art. The RF section 304 amplifies, filters and down converts the superimposed signal to a baseband signal. The baseband signal is then sampled and stored in memory 306. The memory 306 should be sufficiently sized to store enough samples to cover at least one half-slot. This approach should result in at least one gated pilot signal being captured in memory 306. As will be described in greater detail below, one or more half-slots worth of samples can be stored in memory 306 to increase noise immunity during pilot signal acquisition.

Please amend the paragraph beginning at page 11, line 12 as follows:

In at least one embodiment, 96 product values can be coherently combined with relatively little impact due to residual frequency offsets in the baseband pilot signal. This can be achieved with a partial correlation process which produces a number of partial coherent sums from the 96 product values. The partial coherent sums can then be processed in a manner that maintains coherency. By way of example, the buffer 402 and multiplier 404 can be used in conjunction with three adders 406a, 406b, and 406c to perform a partial correlation process that produces three partial coherent sums each from 32 product values. The three partial coherent sums can be provided to a processor 408. The processor 408 effectively derotates and combines the partial coherent sums, and converts the result from a time-domain signal to a frequency-domain signal. The result ~~being~~ is a sequential series of correlation values for one half-slot computed at different frequency offsets or components. As those skilled in the art will appreciate, the 96 product values may be coherently combined in other combinations. By way of example, two adders could be used to produce two partial coherent sums each from 48 product values. Alternatively, two or more adders can be used to produce any number of partial coherent sums from the 96 product values or any portion of the 96 product values. The manner in which the product values

are used to produce the partial coherent sums may vary without departing from the inventive concepts described throughout.

Please amend the paragraph beginning at page 12, line 9 as follows:

For the purposes of describing the various exemplary embodiments throughout, the term [[A]] processor is used in the broadest sense and meant to include a general purpose processor, a digital signal processor (DSP), an application specific integrated circuit (ASIC), a field programmable gate array (FPGA) or other programmable logic device, discrete gate or transistor logic, discrete hardware components, software or any other means known to those skilled in the art to process a signal.